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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/643,886

08/20/2003

Toshio Kayao

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09/03/2004

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EXAMINER

SCHINDLER, DAVID M

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,886

Applicant(s)

KAYAO, TOSHIO

Examiner

David Schindler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/20/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on August 20, 2002. It is noted, however, that applicant has not filed a certified copy of the 2002-238951 application as required by 35 U.S.C. 119(b).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the plural number of weld-adhering parts" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of

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the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

The statement "during it is used and worked" on page two, line seven does not make sense. Two recommendations are 1) "while it is in use" or 2) "during its use."

Appropriate correction is required.

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. One recommendation is "Magnetic encoder with welded rings."

Claim Objections

5. Claim 1 is objected to because of the following informalities:

A plural number of weld parts has not been clearly defined.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) in view Kobayashi (6,051,969). AAPA discloses a protecting cover which is wrapped around a magnetized magnetic ring and is adhered to a reinforcing ring via an adhesive (Page 2, Lines 21-23), and a magnetic ring which is magnetized circumferentially with alternate S poles and N poles (Page 1, Lines 16-18) and is fixed to a reinforcing ring (Page 1, Lines 15-16). AAPA does not disclose a protective cover made of non-magnetic material or the welding of two rings. Kobayashi discloses a magnetic ring and a reinforcing ring where the magnetic ring is welded to the reinforcing ring (Col 2, Lines 47-49). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to weld the protective cover to the reinforcing ring using either the radially inner or outer circumferential side. The motivation for doing so would have been to permanently mount the protective cover over the magnetic ring. It is noted that the AAPA discloses a protective cover that inherently must be made out of a non-magnetic material in order for the magnetic encoder to properly function. Otherwise, the protective cover would act as a flux guide. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a non-magnetic protective cover. The motivation for doing so would have been to ensure that the protective cover did not interfere or influence the encoding abilities of the magnetic material.

8. Claims 2,3 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Kobayashi (6,051,969) and in further view Ochiai (6,119,357). AAPA in view of Kobayashi discloses as explained above. AAPA in view of Kobayashi does not disclose the use of micro-spot welding using a laser or YAG laser welding in order to weld two elements together. Ochiai discloses the use of laser welding to weld two elements together and further discloses that this laser welding may be performed using a YAG laser or some other form of laser welding (this would include the use of micro-spot laser welding) (Col 6, Lines 64-67). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use either micro-spot laser welding or a YAG laser to weld the protective cover to the reinforcing ring. The motivation for doing so would have been to permanently mount the protective cover over the magnetic ring.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes U.S. Pat No. 5,325,055 to Geringer which discloses a non-magnetic protective cover for a magnetic strip, U.S. Pat No. 5,081,416 to La Croix which discloses a magnetic encoder used in a bearing assembly, U.S. Patent Application Publication No. US 2002/0078549 A1 to Yamaguchi which discloses a magnetic encoder have two ring members joined firmly together and with alternating S and N poles, U.S. Pat. No. 5,254,006 to Yamada which discloses the use laser spot

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welding to seal a permanent magnet, and U.S. Pat. No. 6,362,553 to Nakahara which discloses the use of a YAG laser to weld a stator to a holding ring.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Schindler whose telephone number is (571) 272-2112. The examiner can normally be reached on M-F (8:00 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (571) 272-2233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Schindler



JAY PATIDAR
PRIMARY EXAMINER